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## Fuels and Fire

**W**ithout fuel, there can't be fire. It's a simple concept. But it took almost 50 years before fire managers commonly realized the opposite is true: with too much fuel, there can be too much fire.

Too much fuel was recognized as a problem in the latter 1900s as suppression of most fires became the rule. The only good fire, the thinking went, is one that was put out as quickly as possible. Federal wildland fire policy was all too effective.

Some people recognized early on the consequences of the strict fire control policy, but it took many years before their views became widely accepted. In the meantime, dead vegetation accumulated in forests and other ecosystems, often providing a thick mat of fuels, choking many plant communities with overstocked stands of stagnant growth. The kinds of plants that grew in forests and some rangelands were altered, with species not adapted to fire becoming more common. Other natural resources were affected by wildland fire suppression: wildlife, hydrology, soils and nutrient recycling, and many others. The overall health of ecosystems declined.

And when fire did strike, the results were often catastrophic. The thick layer of dead vegetation and overstocked stands of trees provided fire with plenty of fuel. Wildland fires ignited more quickly, burned with greater intensity, and spread more rapidly than ever before. Costs for fighting them soared. Lives were put



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at risk. Losses to property were heavy. Americans became concerned, then alarmed, about devastating wildland fires that often spread over hundreds of thousands of acres.

Wildland fire, it seemed, was far more complex than recognized by the "put them all out fast" policy. Public land managers needed to know more about the science of wildland fire and fuels – especially the problem of fuel accumulations.

## The Joint Fire Science Program – Filling the Gap

**T**he Joint Fire Science Program (JFSP) was established in 1998 to fill the gaps in knowledge about wildland fire and fuels. It's a partnership of six federal agencies – the Forest Service, in the Agriculture Department; and the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service and the U.S. Geological Survey, all in the Department of the Interior. JFSP received specific direction from Congress to scientifically address four areas: fuels inventory and mapping; evaluation of fuels treatments; scheduling of fuels treatments; and monitoring and evaluating fuels treatments. Congress also wanted to see consistent analysis and reporting procedures among federal agencies. Research sponsored by JFSP also examines other fire-related issues, including air quality, smoke management, and the social aspects of fire and fuels management.

In short, the purpose of JFSP is to provide wildland fire and fuels information and tools to specialists and managers. The information and tools will help them to make the best possible decisions and develop sound, scientifically valid plans.

## The Focus of JFSP

**J**FSP research focuses on problems common to many areas and agencies, where solutions would apply to more than one fuel type. JFSP, through its program office at the National Interagency Fire Center (NIFC) in Boise, Idaho, solicits proposals for science projects that are designed to resolve specific problems. The research deals primarily with the root causes of abnormal wildland fire behavior — fuels – rather than with secondary affects. The information and tools produced by the research is available to anyone or any agency with the need for it. Projects sponsored by JFSP are not limited to the western states. Research projects are being conducted from the Southeast to Alaska.

## How JFSP Operates

**J**FSP is managed by an appointed ten-person governing board, with five representatives from the Department of the Interior and five from the Forest Service. The board meets several times a year. In addition, the Governing Board will solicit advice on research priorities and other program issues from a Stakeholder Advisory Group. Day-to-day activities are overseen by the program manager at NIFC.

## Need to Learn More?

**Y**ou may obtain additional information at JFSP's website ([http://www.nifc.gov/joint\\_fire\\_sci/jointfiresci.html](http://www.nifc.gov/joint_fire_sci/jointfiresci.html)) or by phoning the program office at 208-387-5349.

Fire is ancient, fascinating and mysterious. JFSP is taking some of the guesswork out of wildland fires and fuels. The results of the JFSP research will improve safety for firefighters and the public, cut firefighting costs, and help ecosystems across the country to become healthy again.



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